



INTERFUEL: FAST - FY 2020 Federal Fleet Dataset

March 2021

Changing the World's Energy Future

Ron Stewart



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INTERFUEL: FAST - FY 2020 Federal Fleet Dataset

Ron Stewart

March 2021

**Idaho National Laboratory
Idaho Falls, Idaho 83415**

<http://www.inl.gov>

**Prepared for the
U.S. Department of Energy
Under DOE Idaho Operations Office
Contract DE-AC07-05ID14517, DE-AC07-05ID14517**

FAST: FY 2020 Federal Fleet Dataset

INTERFUEL • March 2021

FY 2020 Federal Fleet Dataset: Overview



49 organizations



704K vehicles



1.1M fuel records

Source: Federal Automotive Statistical Tool, <https://fastweb.inl.gov/>

FY 2020 Federal Fleet Dataset: Overview



Inventory

658K

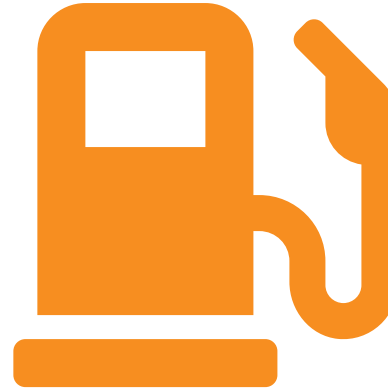
+1.9%



Miles

4.16B

-7.1%



Fuel

372M GGE

-3.8%



Cost

\$3.55B

-3.9%

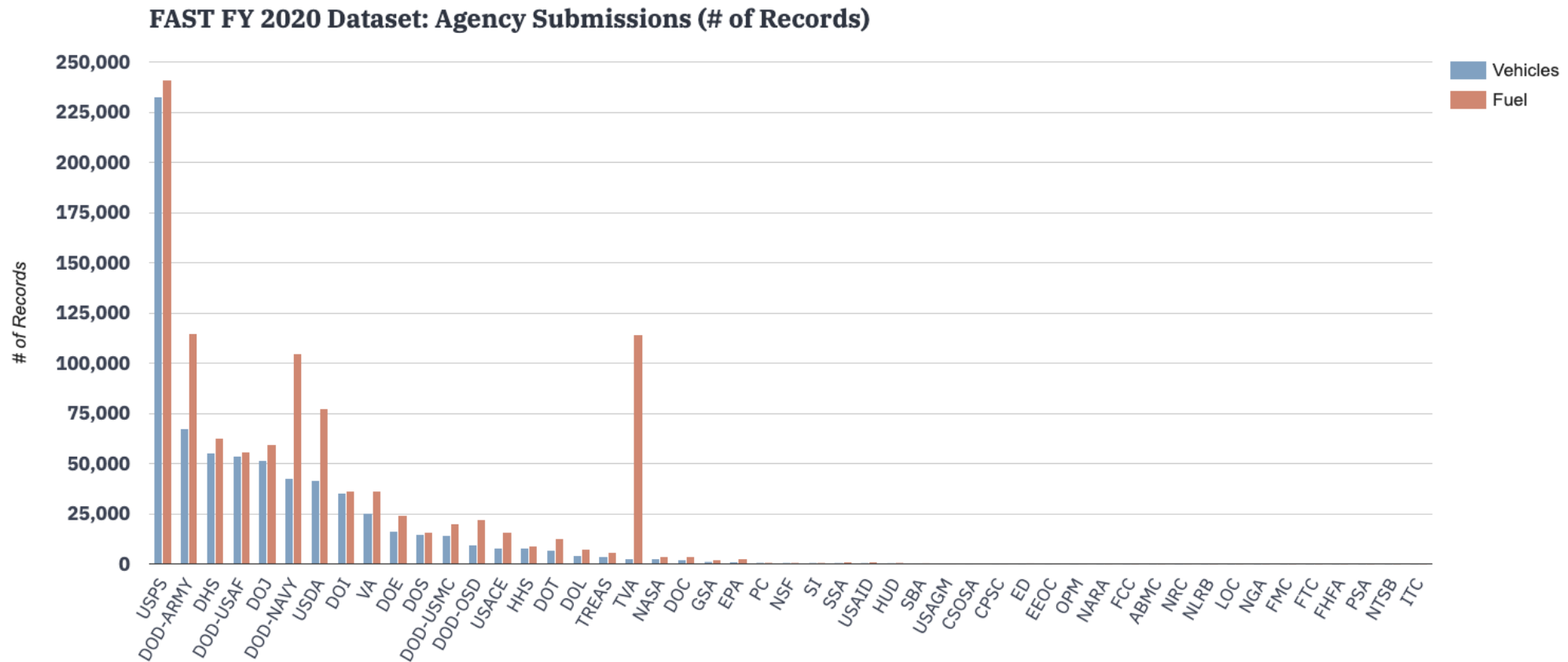


Source: Federal Automotive Statistical Tool, <https://fastweb.inl.gov/>

Cost figures include only operating costs (lease, maintenance, accident repair, fuel, indirect costs) and do not include costs associated with acquisition, disposal, or depreciation

FY Federal 2020 Fleet Dataset: Overview

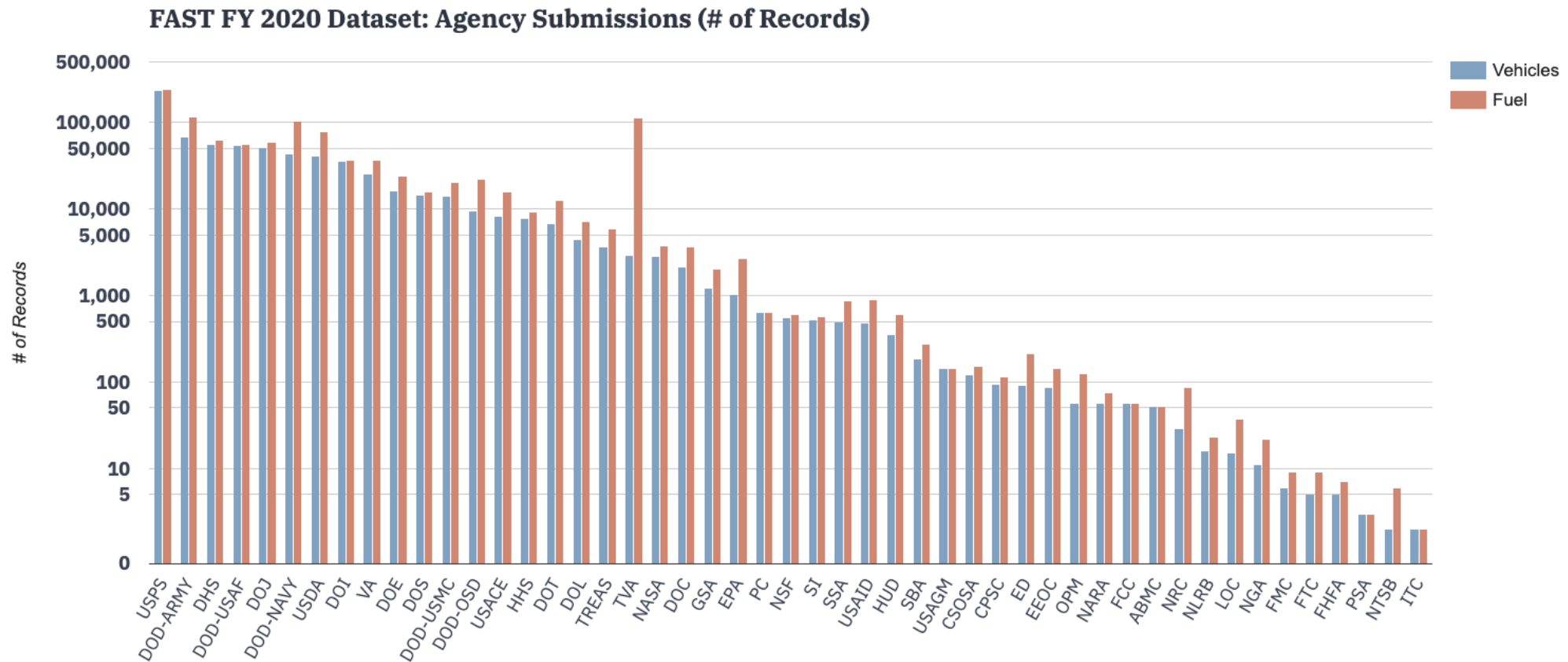
Agency Submissions



Source: Federal Automotive Statistical Tool, <https://fastweb.inl.gov/>

FY 2020 Federal Fleet Dataset: Overview

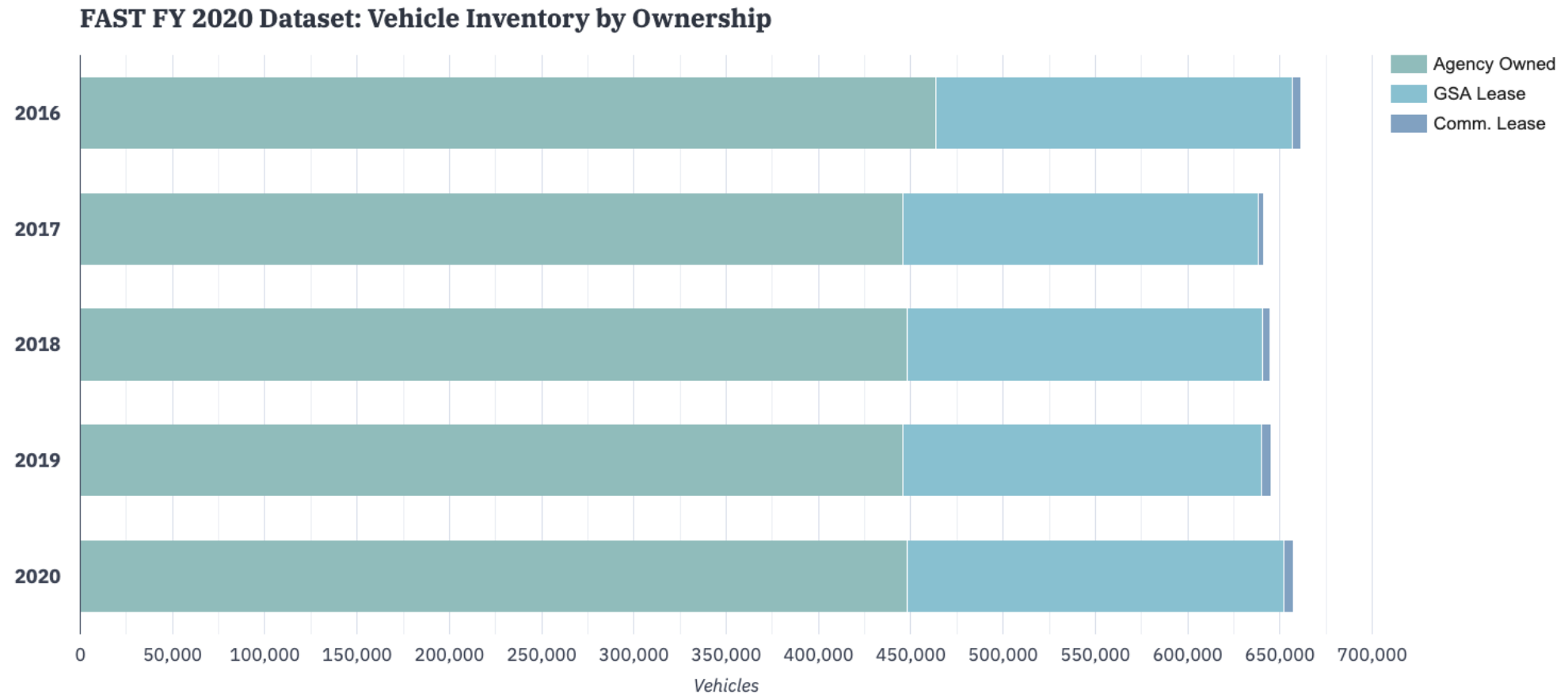
Agency Submissions



Source: Federal Automotive Statistical Tool, <https://fastweb.inl.gov/>

FY 2020 Federal Fleet Dataset: 5-Year Trends

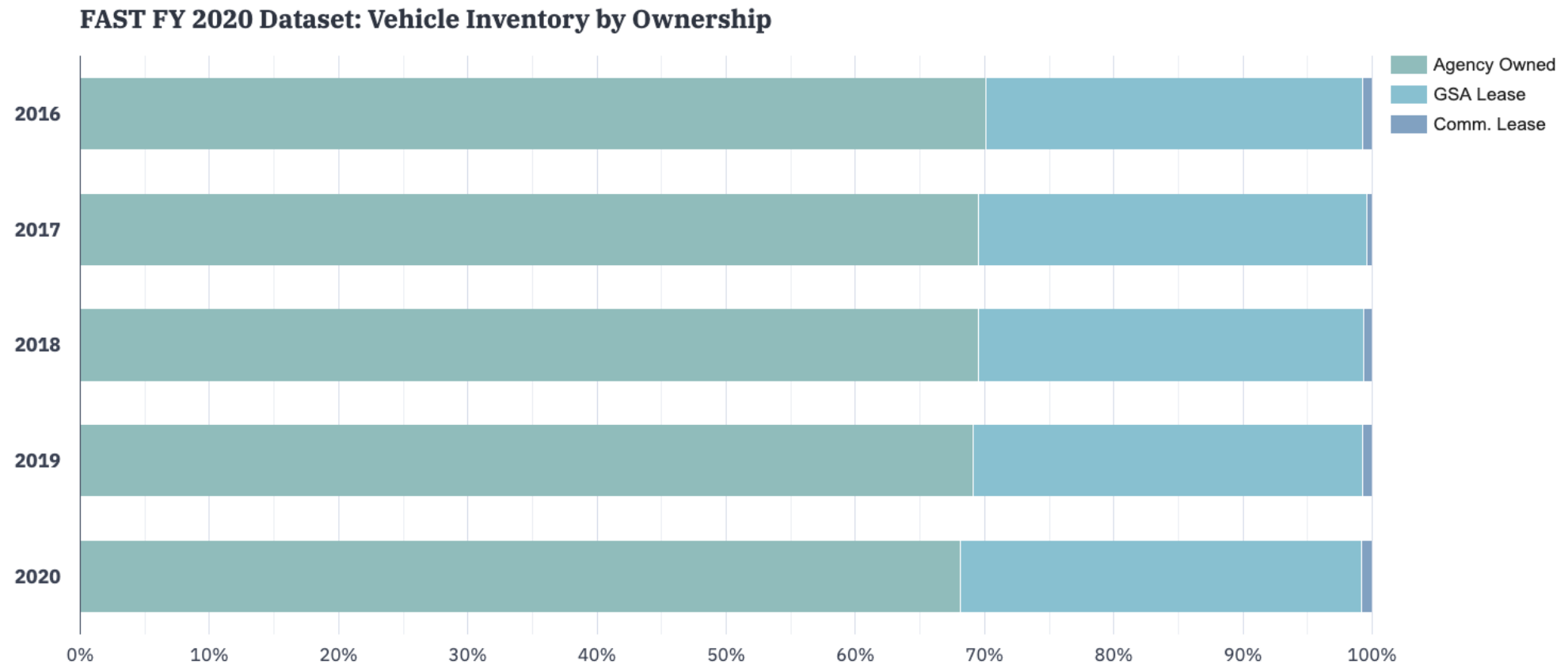
Vehicle Inventory



Source: Federal Automotive Statistical Tool, <https://fastweb.inl.gov/>

FY 2020 Federal Fleet Dataset: 5-Year Trends

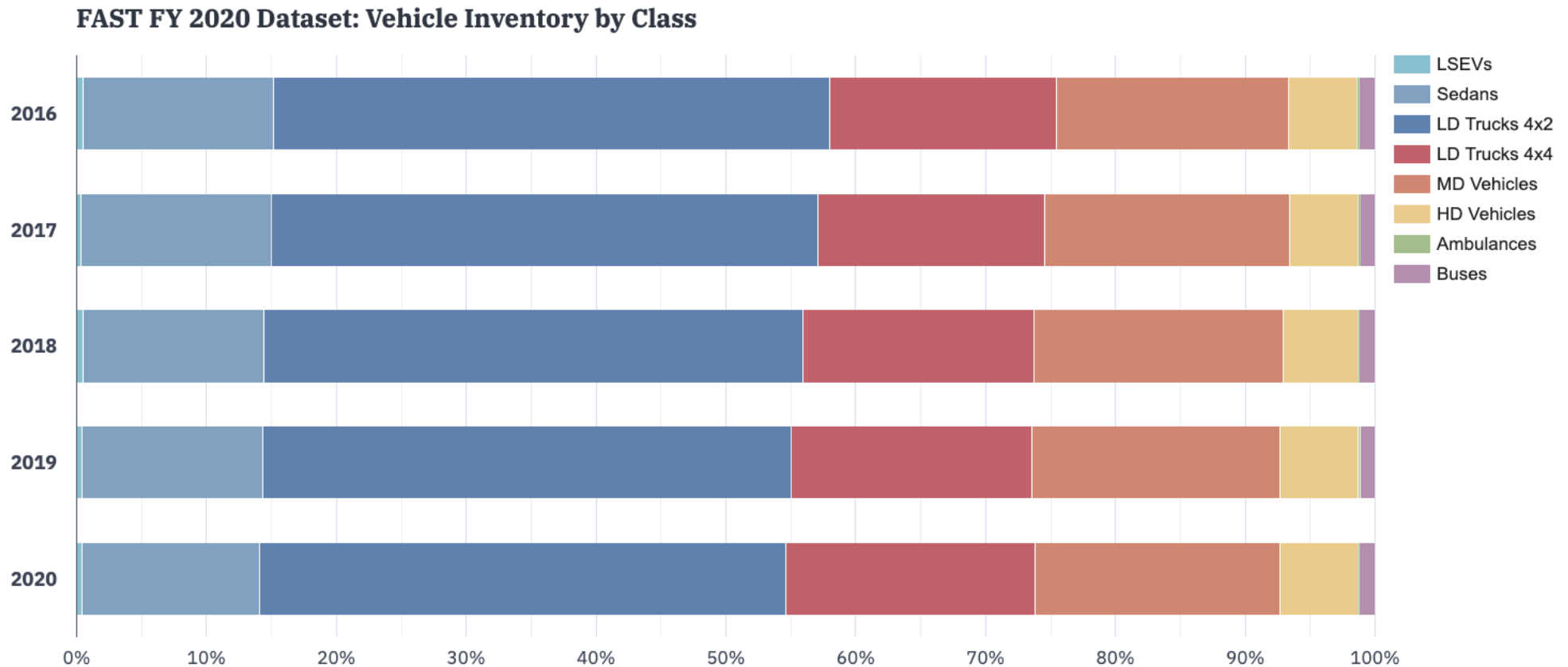
Vehicle Inventory



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FY 2020 Federal Fleet Dataset: 5-Year Trends

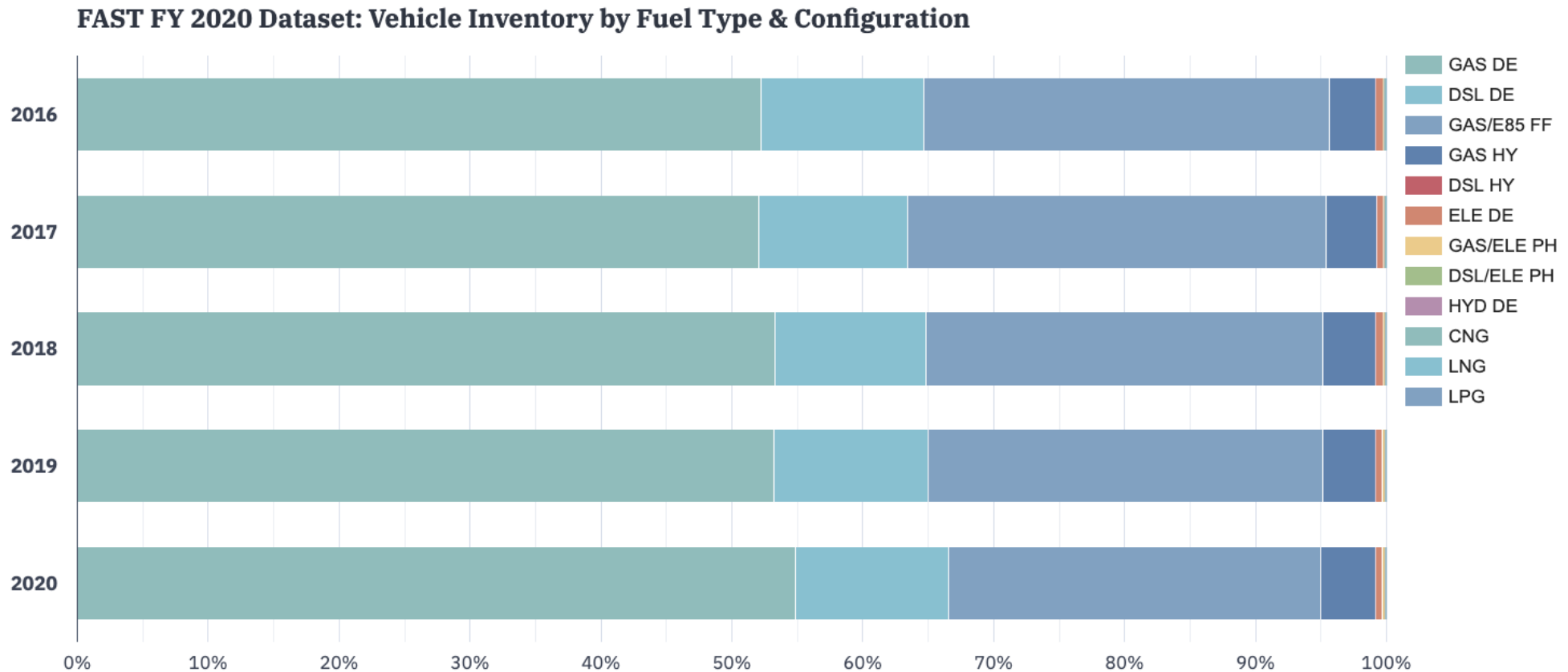
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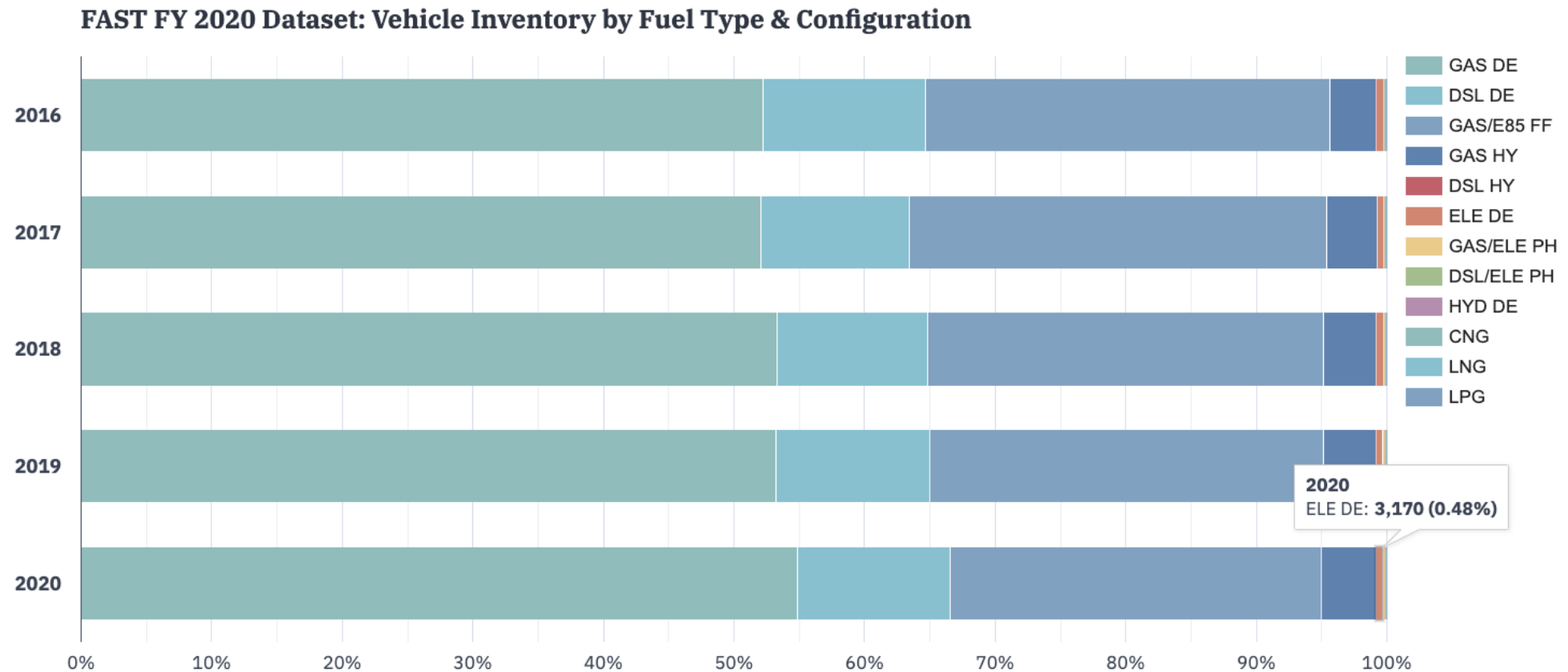
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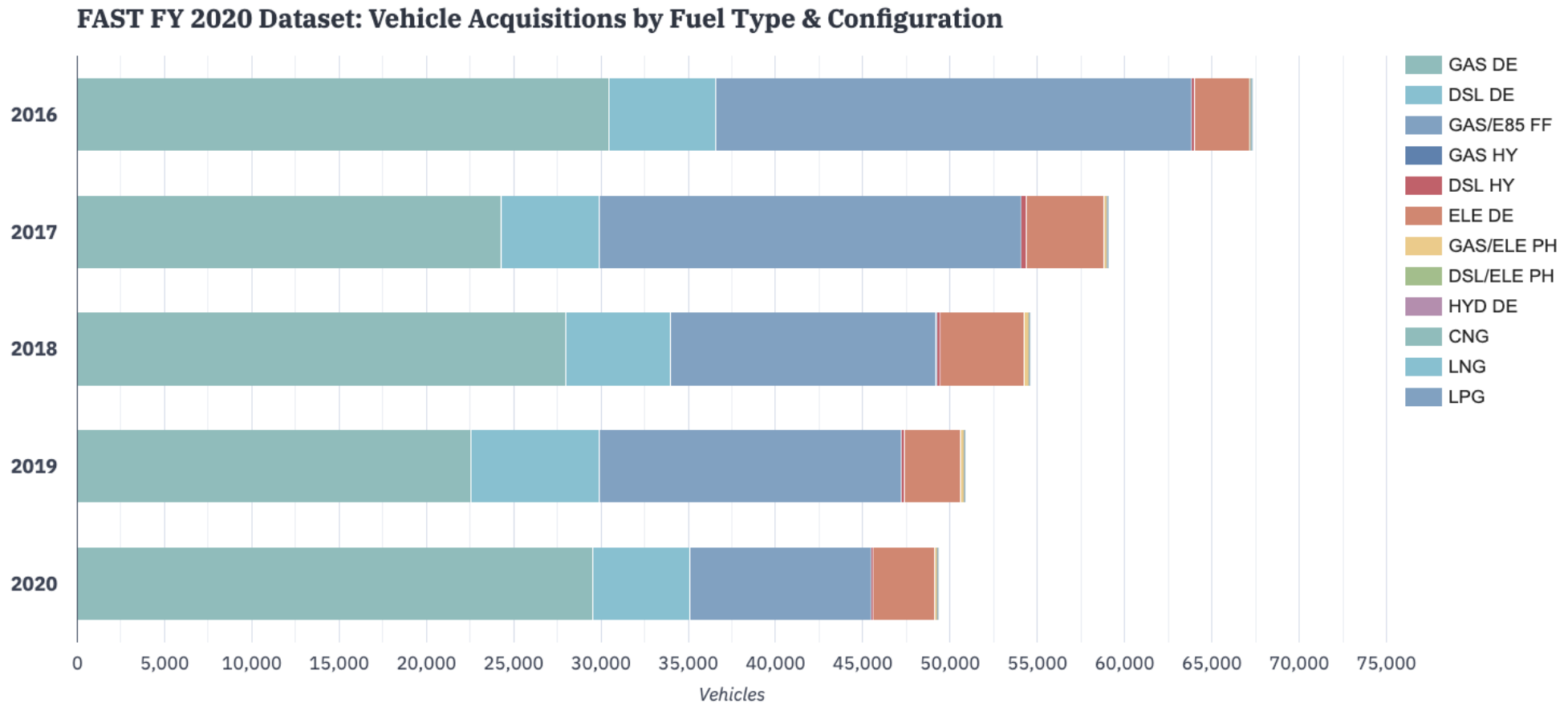
Vehicle Inventory



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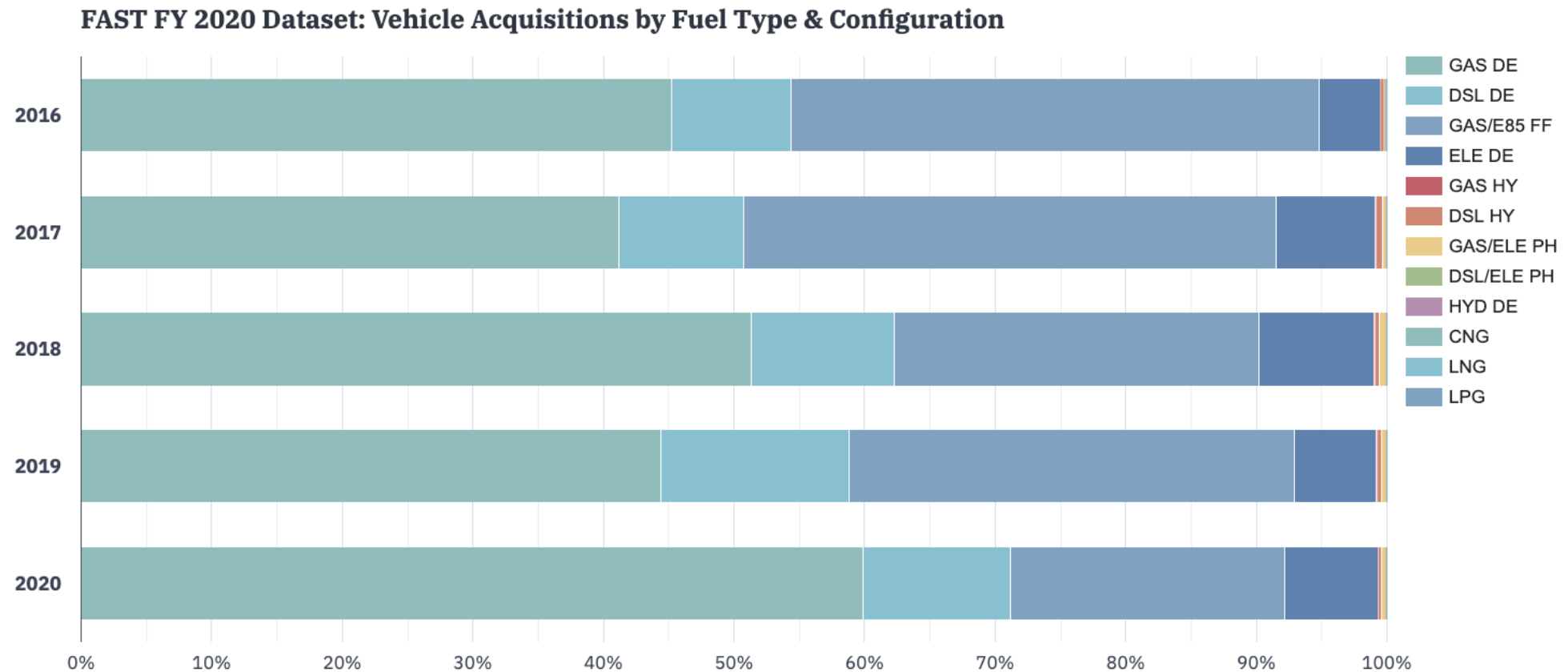
Vehicle Acquisitions



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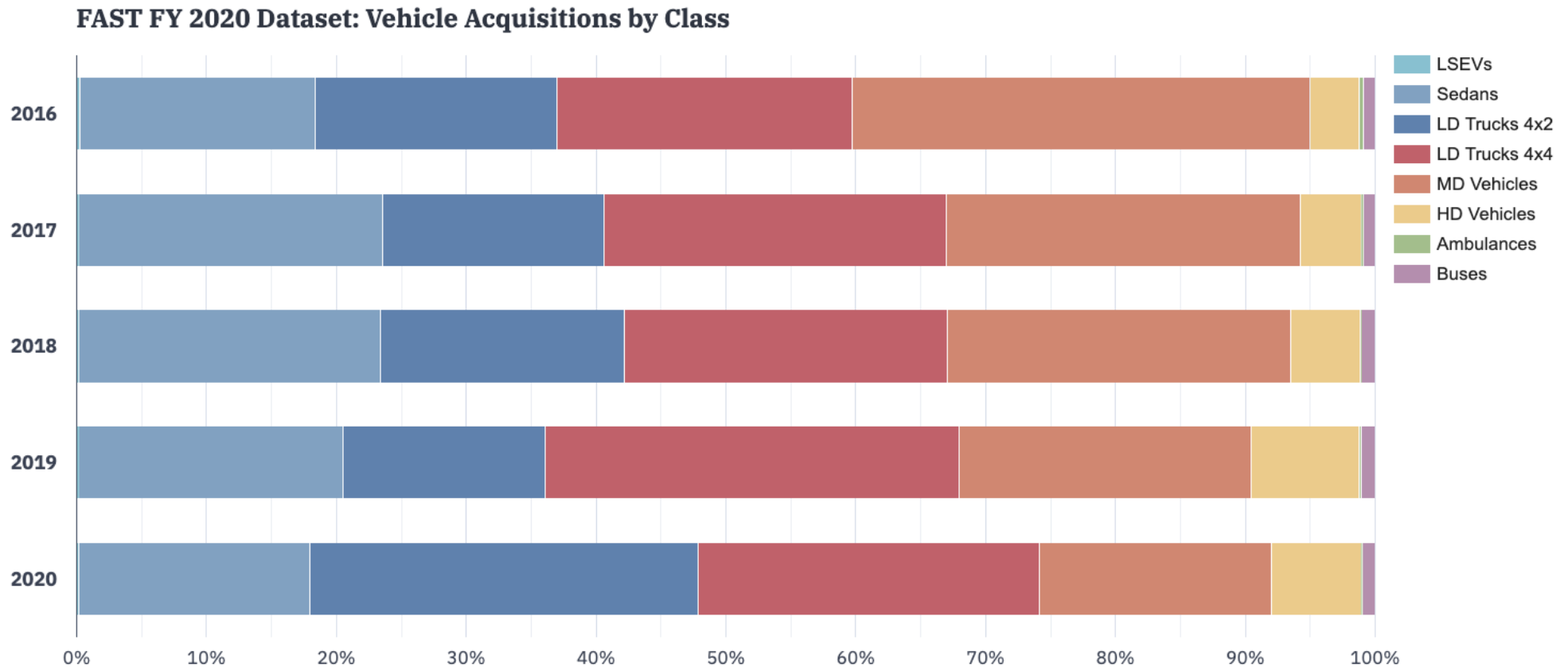
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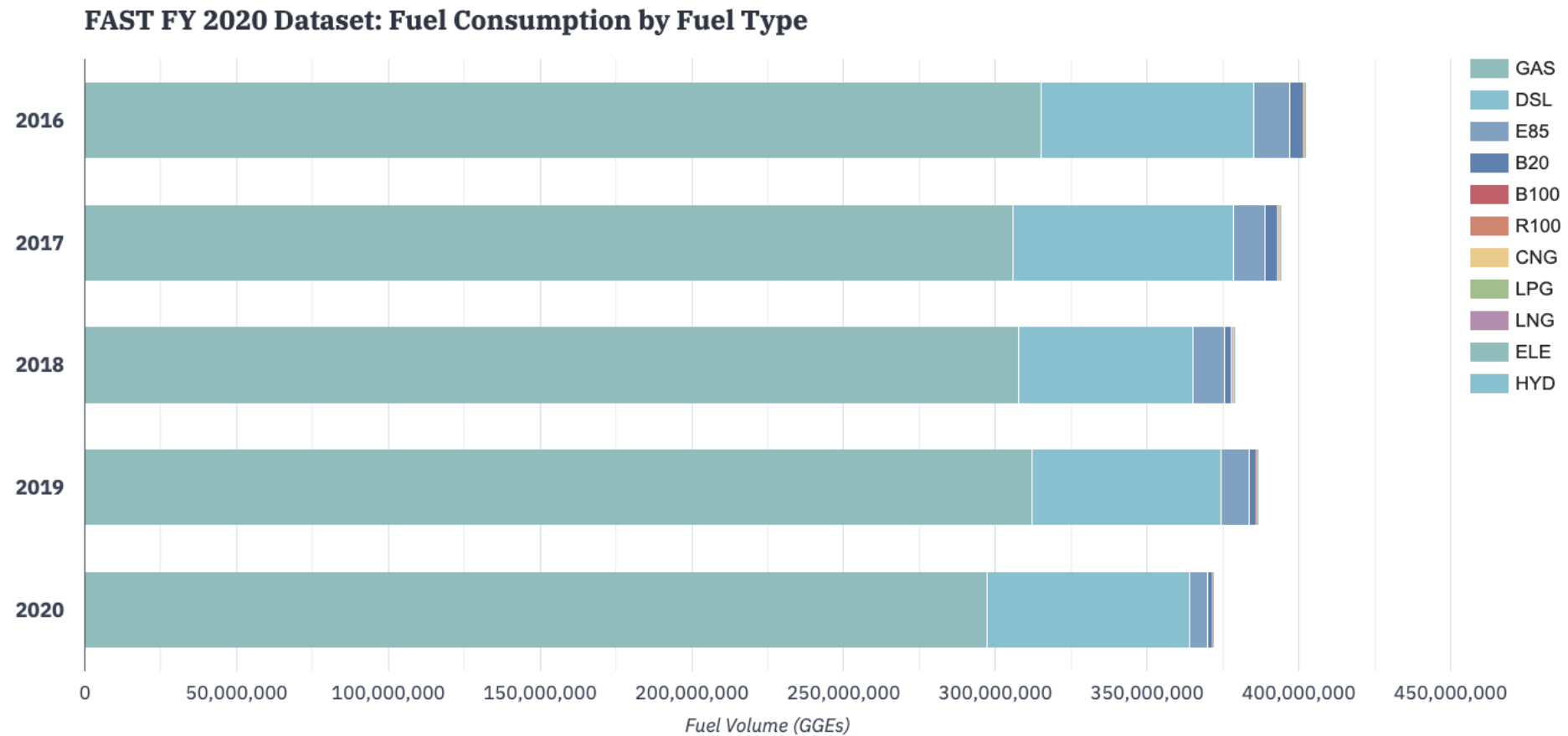
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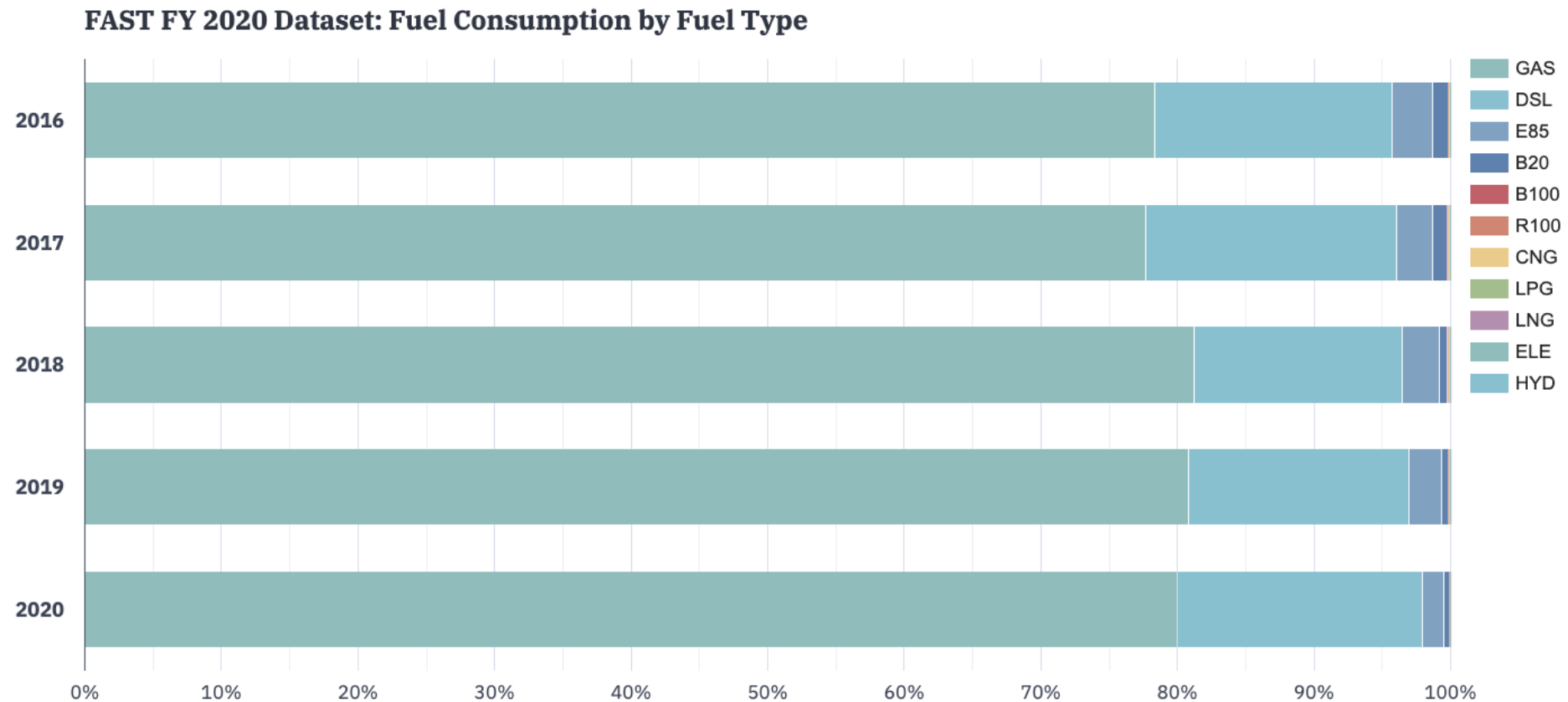
Fuel Consumption



Source: Federal Automotive Statistical Tool, <https://fastweb.inl.gov/>

FY 2020 Federal Fleet Dataset: 5-Year Trends

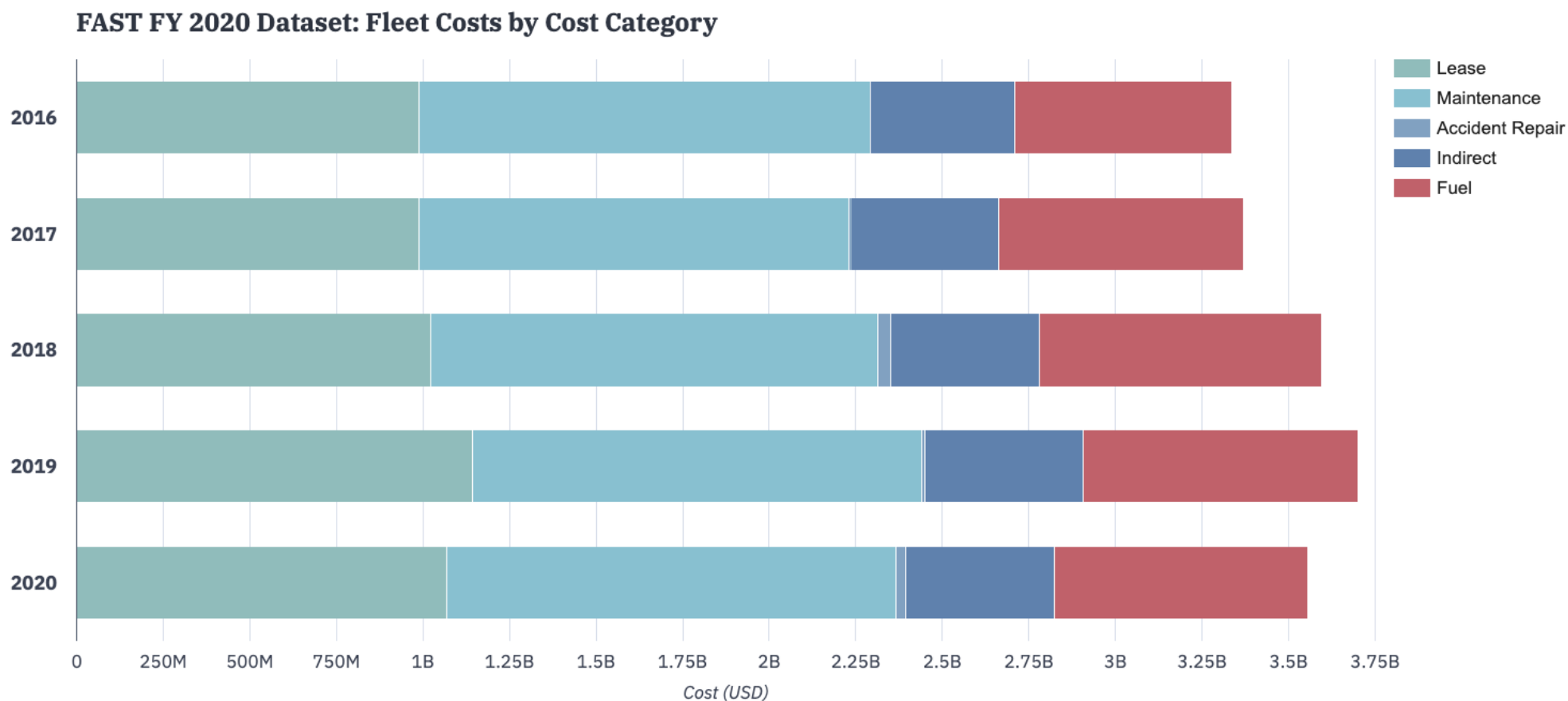
Fuel Consumption



Source: Federal Automotive Statistical Tool, <https://fastweb.inl.gov/>

FY 2020 Federal Fleet Dataset: 5-Year Trends

Operating Costs

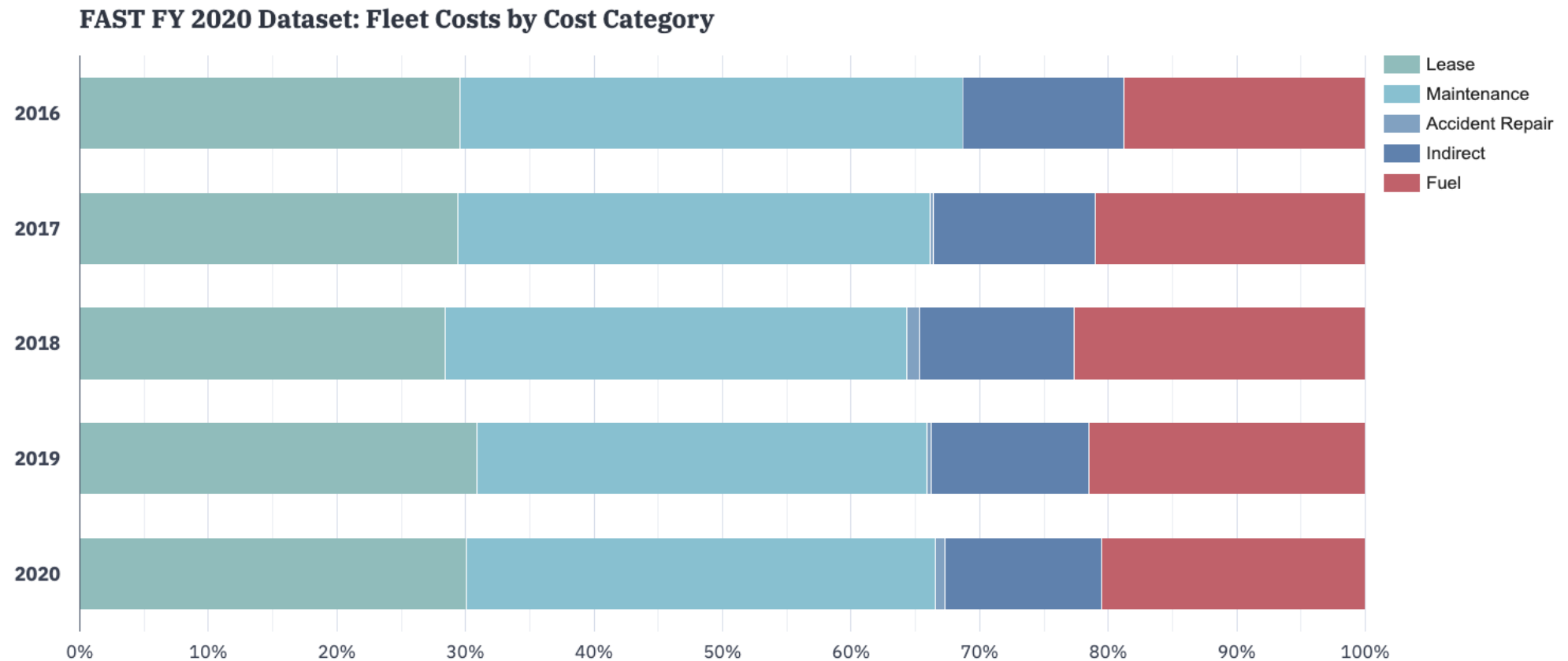


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Cost figures include only operating costs (lease, maintenance, accident repair, fuel, indirect costs) and do not include costs associated with acquisition, disposal, or depreciation

FY 2020 Federal Fleet Dataset: 5-Year Trends

Operating Costs



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FY 2020 Federal Fleet Dataset: Year-to-Year Comparison



Inventory

658K

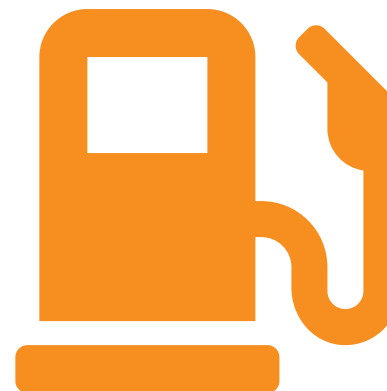
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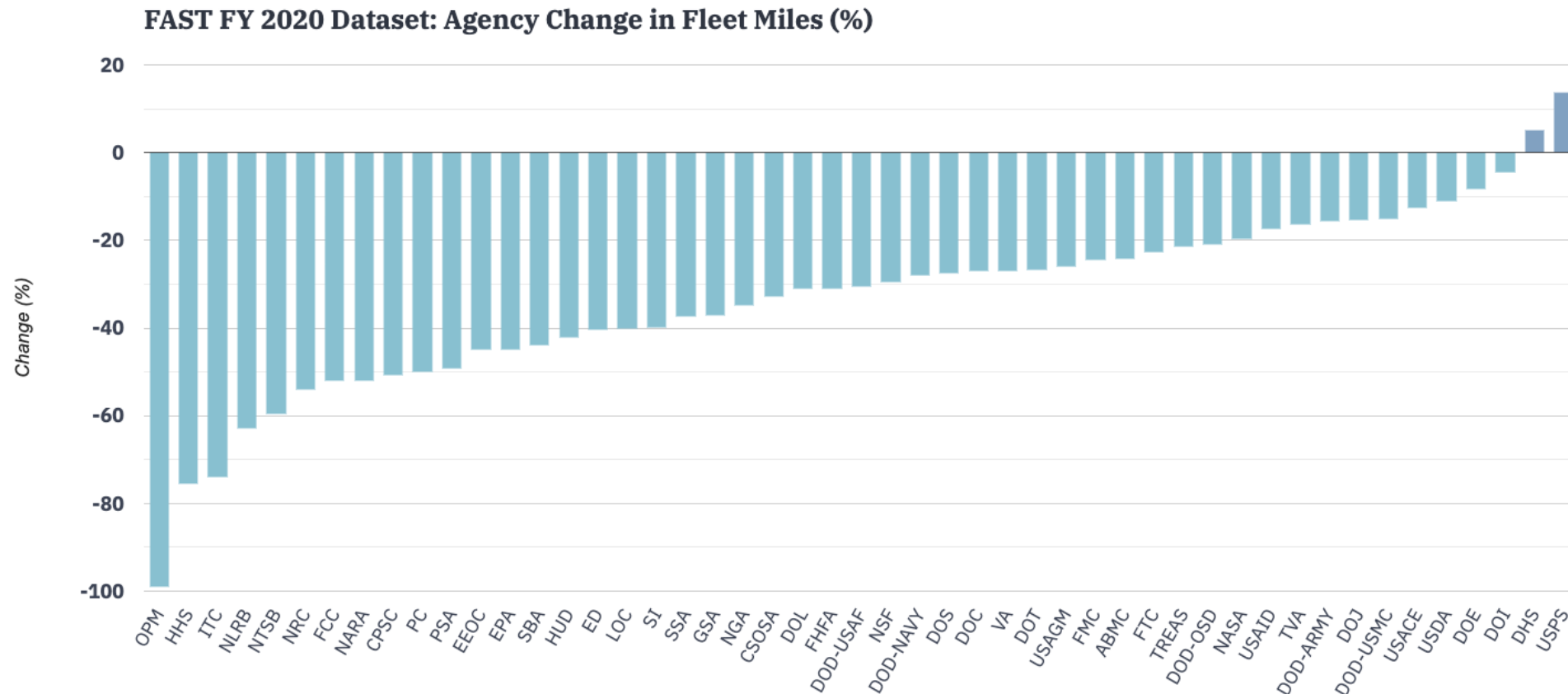
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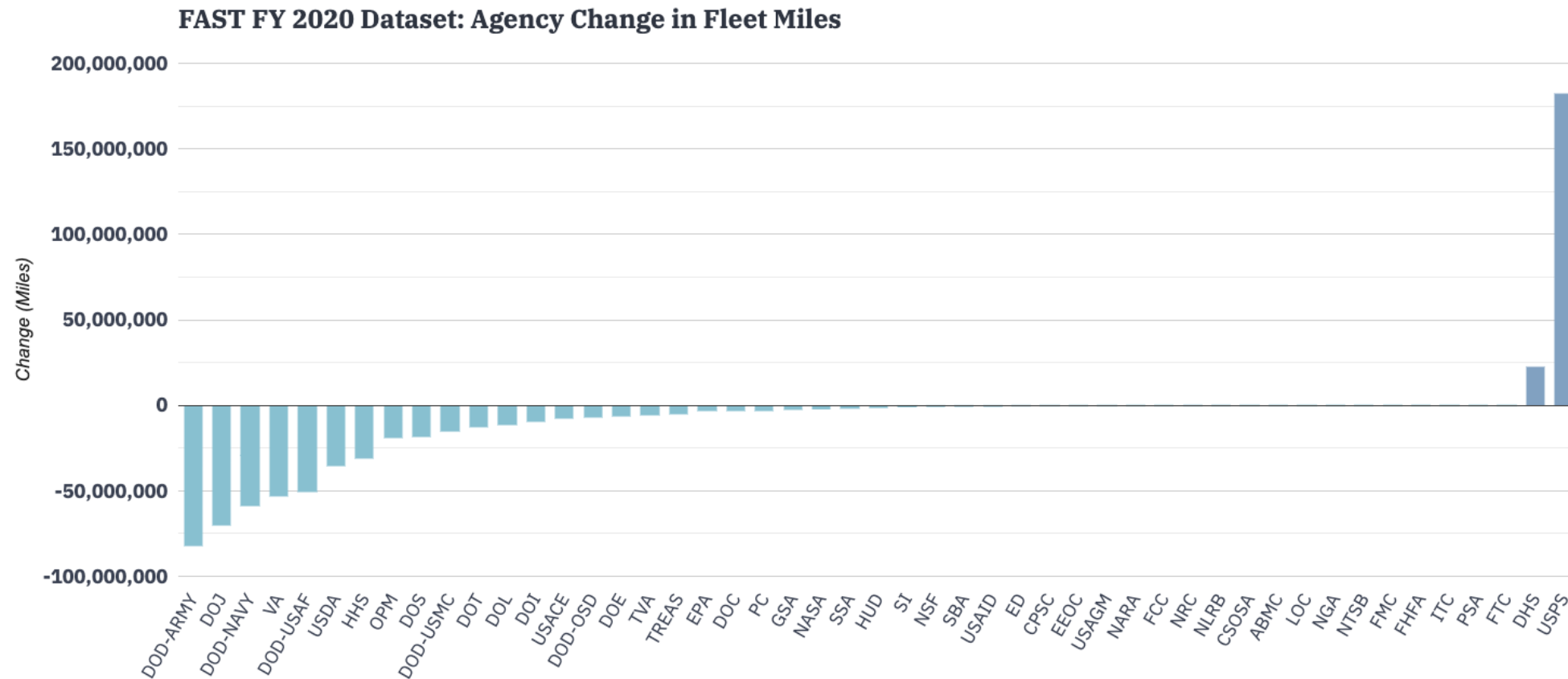
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FY 2020 Federal Fleet Dataset: Year-to-Year Comparison



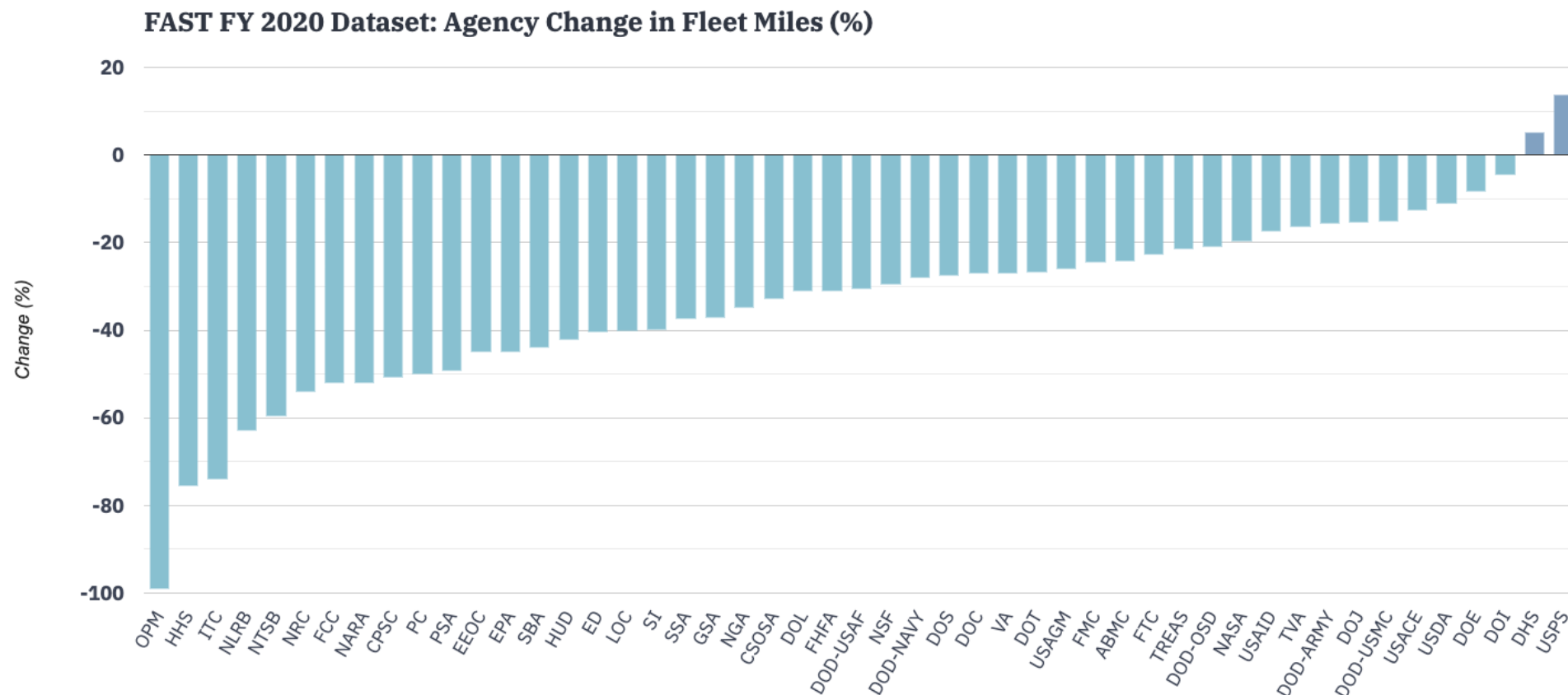
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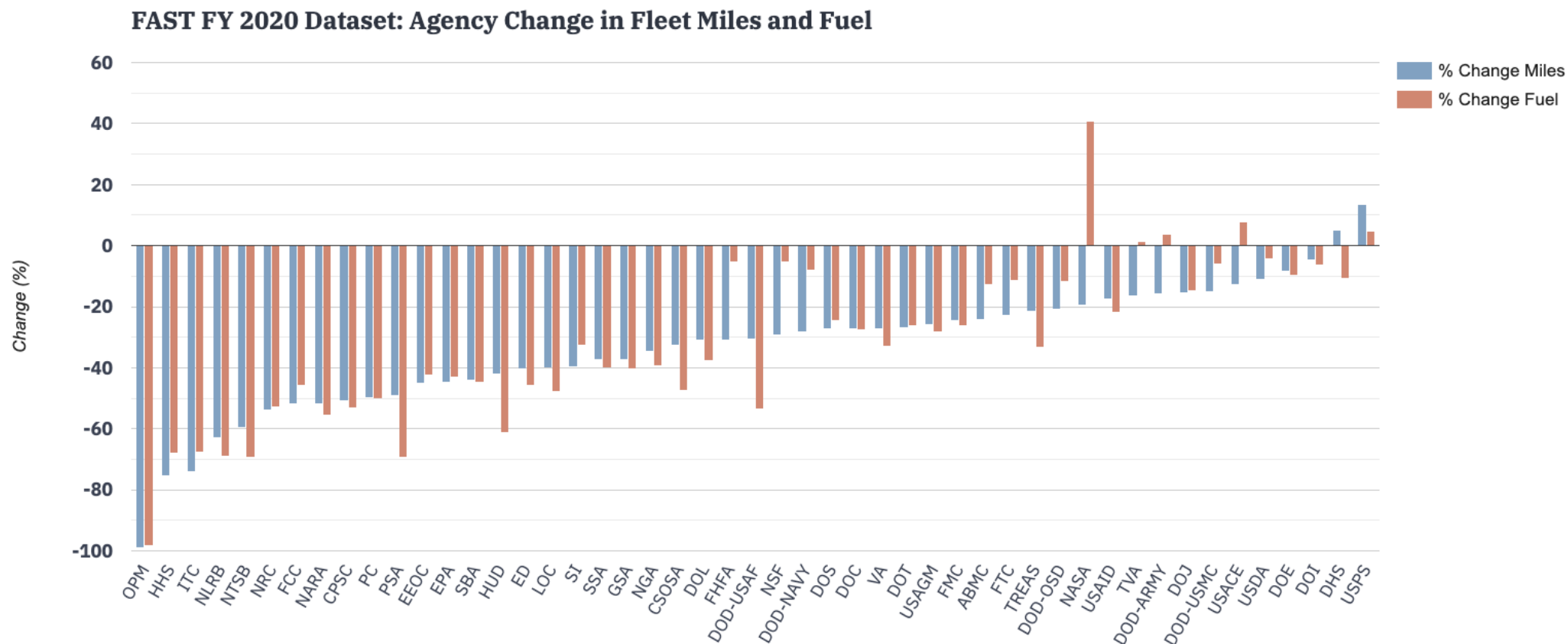
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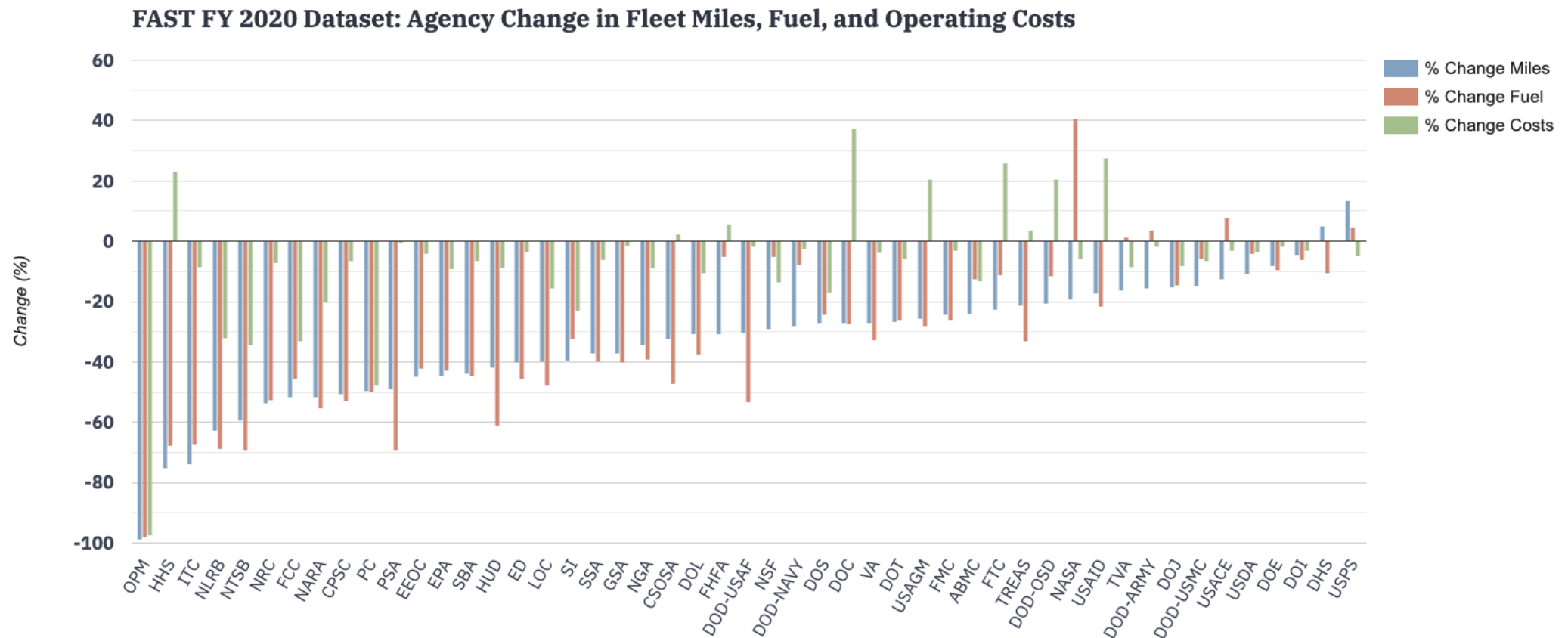
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FY 2020 Federal Fleet Dataset: Year-to-Year Comparison



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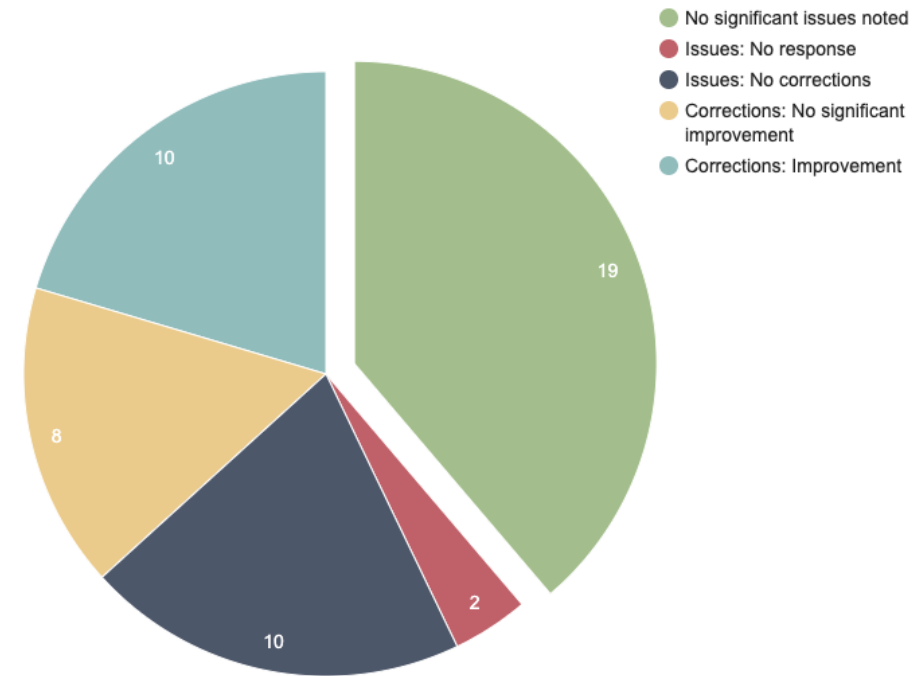
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FY 2020 Federal Fleet Dataset: Review and Corrections

Review Process and Results

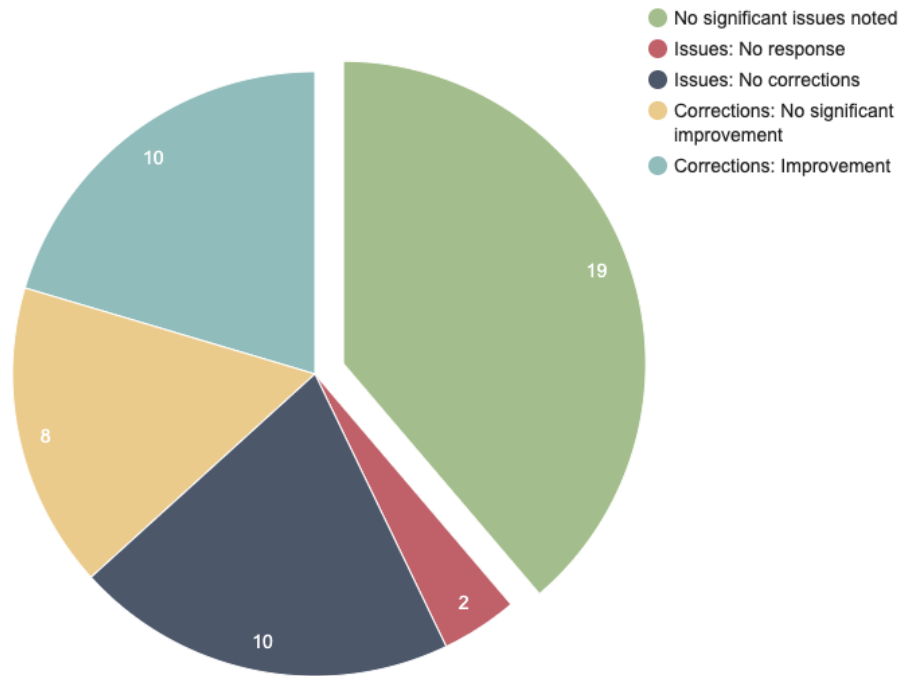
- FAST management team reviewed agency submissions
- Written feedback provided to agencies (late January 2021)
- Agencies responded to any noted potential issues
- Agencies granted short period to submit corrections where feasible (due late February 2021)

FAST FY 2020 Dataset: Dataset Review

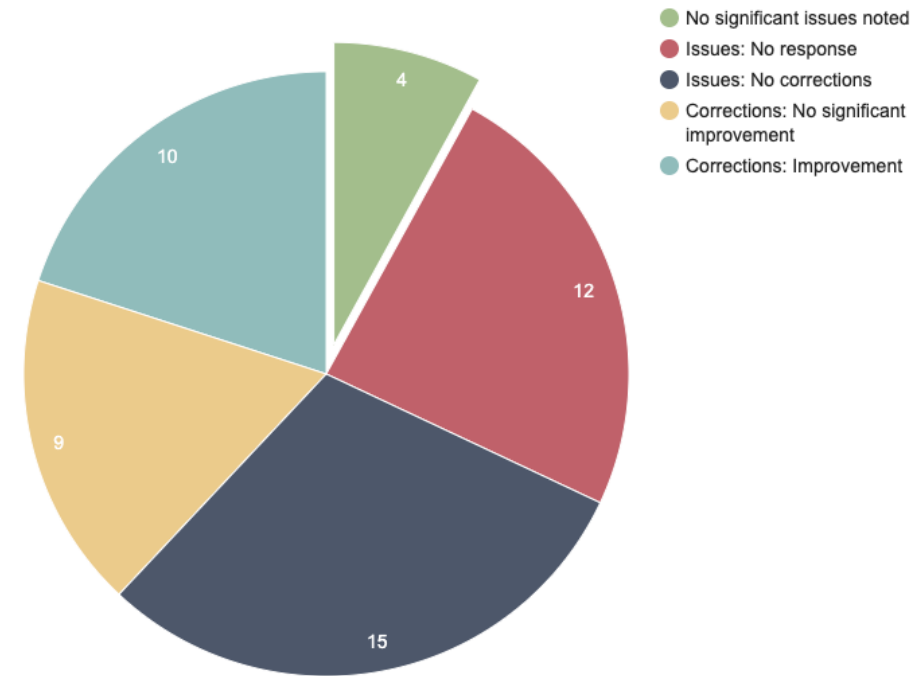


FY 2020 Federal Fleet Dataset: Review and Corrections

FAST FY 2020 Dataset: Dataset Review



FAST FY 2019 Dataset: Dataset Review



FY 2020 Federal Fleet Dataset: Review and Corrections


Impact of Agency Corrections

- **Review Measure 6: Invalid vehicle fuel efficiencies**
 - Agency corrections reduced issues by 19% (3,500 vehicles)
 - 5 agencies addressed over 80% of the identified vehicles in their submissions
- **Review Measure 7(d): Previously-reported vehicles missing**
 - 3 agencies reduced these by 15%, 36%, 100% (adding almost 200 vehicles)
- **Review Measure 8: Use of “placeholder” vehicle attributes**
 - 12 agencies reduced these:
 - Over 1,400 fewer vehicles with placeholders
 - Eliminated over 1,200 blocking placeholders, 700 flagging placeholders
 - 2 agencies eliminated over 70% of their placeholders

FY 2020 Federal Fleet Dataset

Important Activity After the Data Call

- **Fleet fuel cost data finalized**
 - FAST's "Fleet Fuel Consumption Report for Greenhouse Gas Reporting" finalized
 - Summaries for all agencies transmitted to DOE's Federal Energy Management Program

 **FAST**

User: Ron Stewart
Agency: Department of Energy
Data Year: 2020

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Fleet Fuel Consumption Report for Greenhouse Gas Reporting

Department of Energy - FY2020

About this Report: This FAST report is provided to facilitate reporting of the greenhouse gas emissions associated with fleet fuel consumption in the Federal Energy Management Program's *Annual Greenhouse Gas and Sustainability Data Report*. The output of this FAST report may be used as the input for the "FAST Mobile Energy" tab of the *Annual Greenhouse Gas and Sustainability Data Report*. The cells of this FAST report align with the input cells for the "FAST Mobile Energy" tab. From the input cells of the tab, the *Annual Greenhouse Gas and Sustainability Data Report* will automatically calculate the emissions associated with each type of fuel. Fleet managers may be asked by the agency's energy or sustainability personnel to provide this report from FAST for that purpose.

Electricity and hydrogen are not represented among the fuels here because vehicles do not produce greenhouse gas emissions when consuming these fuels. The generation of electricity or hydrogen may produce emissions, but such emissions are not reported in association with the emissions from fleet fuel consumption. The emissions associated with the generation of electricity used to charge plug-in electric vehicles and low-speed electric vehicles are captured in the agency's reporting of facility electricity consumption, not in the reporting of fleet fuel consumption.

You can extract and format the content of this report for your own use by selecting the desired portion of the table, copying that selection (with Ctrl-C on most systems or Command-C on a Mac), and then pasting (with Ctrl-V or Command-V) the copied content into a word processing or spreadsheet program of your choice.

Select Organization:
Department of Energy

Fuel Group	Fuel	Fuel Type	Fuel Category	Annual Consumption Domestic	Annual Consumption International	Total Annual Consumption	Unit of Measure	Cost
Petroleum	Diesel	DSL	Standard	1,599,781	0	1,599,781	GGE	\$ 3,906,699
Petroleum	Diesel	DSL E/ER	E/ER	538,230	0	538,230	GGE	\$ 1,241,767
Petroleum	Diesel	DSL LE	LE	7,733	0	7,733	GGE	\$ 18,168
Petroleum	Gasoline	GAS	Standard	2,415,059	0	2,415,059	GGE	\$ 5,754,971
Petroleum	Gasoline	GAS E/ER	E/ER	147,178	0	147,178	GGE	\$ 346,982
Petroleum	Gasoline	GAS LE	LE	201,793	0	201,793	GGE	\$ 473,914
Alternative	LPG	LPG	Standard	0	0	0	GGE	\$ 0
Alternative	LPG	LPG E/ER	E/ER	0	0	0	GGE	\$ 0
Alternative	LPG	LPG LE	LE	0	0	0	GGE	\$ 0
Alternative	Bio-diesel	B100	Standard	30	0	30	GGE	\$ 105
Alternative	Bio-diesel	B100 E/ER	E/ER	64	0	64	GGE	\$ 221
Alternative	Bio-diesel	B100 LE	LE	0	0	0	GGE	\$ 0
Alternative	Bio-diesel	B20	Standard	205,993	0	205,993	GGE	\$ 500,120
Alternative	Bio-diesel	B20 E/ER	E/ER	7,048	0	7,048	GGE	\$ 16,809
Alternative	Bio-diesel	B20 LE	LE	4,517	0	4,517	GGE	\$ 10,636
Alternative	CNG	CNG	Standard	3	0	3	GGE	\$ 7
Alternative	CNG	CNG E/ER	E/ER	0	0	0	GGE	\$ 0

FY 2020 Federal Fleet Dataset

Important Activity After the Data Call

- **EPAct AFV acquisition compliance analysis is complete**
 - Same process as FY 2019: vehicle location used to determine vehicle coverage / exemption status
 - Now reflected on FAST's "EPAct AFV Acquisition Compliance Report"

FAST

User: Ron Stewart
Agency: Department of Energy
Data Year: 2020

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EPAct AFV Acquisition Compliance Report

Department of Energy - FY2020

About this Report:

This report provides a summary of the selected organization's compliance with the alternative fuel vehicle (AFV) acquisition requirements from the Energy Policy Act 2005 of 2005 (EPAct). Data is shown for the current year ("actuals") along with projections for compliance for the next three years in the future ("planned", "projected", and "forecast", respectively).

Printing Instructions:

You can easily extract and format the content of this report for your own use by using your pointer to select the desired table(s), copying that selection (with Ctrl-C on most systems or "Apple"-C on a Mac), and then pasting the copied table(s) into a wordprocessing or spreadsheet program of your choice (with Ctrl-V or "Apple"-V).

2020 AFV Report: Actual Data (FY2020)

1. Actual Light-Duty Vehicle Acquisitions and Exemptions

	Acquisitions			
	Leased	Purchased	Total	
Total Light-Duty Vehicle Acquisitions	899	15	914	
Exemption: Fleet Size	11	1	12	
Exemption: Foreign	0	0	0	
Exemption: Geographic	386	2	388	
Exemption: LE Vehicle	23	0	23	
Exemption: Non-covered Vehicle	0	0	0	
Exemption: Non-MSA Operation	0	0	0	
Total EPAct-Covered Vehicles	479	12	491	

2. Actual Alternative Fuel Vehicle Acquisition Detail

Vehicle Type	Fuel	LE	Acquisitions			EPAct Credits
			Lease	Purchase	Total	
Light Duty Vehicles						
Sedan/St Wgn Compact	GAS HY3	No	74	0	74	74
Sedan/St Wgn Compact	GAS/E85 FF	No	3	0	3	3
Sedan/St Wgn Compact	GAS/ELE PH	No	3	0	3	3
Sedan/St Wgn Midsize	GAS HY3	Yes	1	0	1	0
Sedan/St Wgn Midsize	GAS/E85 FF	No	2	0	2	2
Sedan/St Wgn Subcompact	ELE DE	No	1	0	1	1
Sedan/St Wgn Subcompact	GAS DE	No	6	0	6	6
Sedan/St Wgn Subcompact	GAS HY3	No	12	0	12	12
Sedan/St Wgn Subcompact	GAS/E85 FF	No	6	0	6	6
Sedan/St Wgn Subcompact	GAS/ELE PH	No	7	0	7	7

FY 2020 Federal Fleet Dataset

Important Activity After the Data Call

- **Other Compliance and Reporting Activities**

- Review and incorporation of fueling center and EVSE inventory submissions into DOE's Alternative Fuel Data Center
- EISA 2007 Section 141 compliance summary transmitted to EPA
- Preparation of OMB sustainability scorecards
- EPCA 2005 Section 701 compliance analysis
- Preparation of GSA's Federal Fleet Report data tables and related products

- **Preparation for FY 2021 Reporting**



FAST: FY 2020 Federal Fleet Dataset



Discussion

FAST Program Points of Contact

- **DOE Federal Energy Management Program**

- Jay Wrobel
✉ Jay.Wrobel@ee.doe.gov
- Kendall Kam
✉ Kendall.Kam@ee.doe.gov

- **GSA Office of Government-wide Policy**

- James Vogelsinger
✉ James.Vogelsinger@gsa.gov
- Patrick McConnell
✉ Patrick.McConnell@gsa.gov

- **FAST Support Team**

- ✉ FASTsupport@inl.gov
- 🐦 @FASTdevs

- **FAST**

- 🕒 <https://fastweb.inl.gov/>

- **FAST Help**

- <https://fastweb.inl.gov/help/>





Ron Stewart

FAST Team Lead
Idaho National Laboratory
ron.stewart@inl.gov